

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number
WO 2005/079339 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/US2005/004532

(22) International Filing Date: 14 February 2005 (14.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/544,009 12 February 2004 (12.02.2004) US

(71) Applicant (for all designated States except US): **THE UNIVERSITY OF AKRON** [US/US]; 302 East Buchtel Common, Akron, OH 44325 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **RENEKER, Darrell, H.** [US/US]; 300 Hampshire Road, Akron, OH 44313 (US). **SMITH, Daniel, J.** [US/US]; 2988 Ridgeline Trail, Stow, OH 44224 (US). **KATAPHINAN, Woraphon** [TH/US]; 805 Yale St., #B, Akron, OH 44311 (US).

(74) Agent: **MOXON, George, W., II**; Roetzel & Andress, 222 South Main Street, Akron, OH 44308 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IMPROVED STENT FOR USE IN CARDIAC, CRANIAL AND OTHER ARTERIES

(57) Abstract: The present invention is directed to a medical device, such as a stent, having a coating comprising a release component and an insoluble fibrous component. The release component is capable of being degraded thus leaving a gap between the stent and the insoluble fibrous component. Further, the insoluble fibrous component is capable of being wrapped about the stent, and capable of moving substantially freely about the stent upon degradation of the release component. This capacity enables the insoluble fibrous component to form a reinforced thrombus plug in, for instance, an aneurysm or fistula.



WO 2005/079339 A2